ABSTRACT OF THE DISCLOSURE

In a transaction processing system for processing a plurality of transactions in parallel with respect to hierarchical data, a copy of the hierarchical data is produced at a time of starting each transaction, and whether a collision between a reading or writing access to be made by a first transaction with respect to a copy and a writing or reading access made by the second transaction with respect to a copy will occur or not is judged and a processing for avoiding the collision is carried out when it is judged that the collision will occur. When the first transaction is to be finished normally, a writing access made by the first transaction with respect to a copy of the hierarchical data for the first transaction is reflected on the hierarchical data, as well as on a copy for the second transaction if the second transaction is not finished yet.